Lecture 3

Qs5 ii)

Qs6 i)

41216h

(i) Lowest segment number → 41216 − FFFF (highest offset)

= 3121 7 (Round up)

= 31220h

= 3122

Offset:- 41216 − 31220 = FFF6h

Lowest Logical address = (3122 : FFF6)

(ii) 2nd Lowest logical address:- segment number of lowest + 1h

= 3123

offset :- (41216 − 31230) = FFE6

2nd lowest logical address → (3123 : FFE6)

(iii) 3rd Lowest logical address:- segment number of lowest + 2h

= 3124

offset :- (41216 − 31240) = FFD6

2nd lowest logical address → (3124 : FFD6)

(iv) 9th lowest logical address:- segment number of lowest +8h

= 3122h + 8h = 312A

offset :- (41216 − 312A0) = FF76

2nd lowest logical address → (312A : FF76)

(v) 12th lowest logical address:- segment number of lowest +Bh (always in hex; was 11 in decimal)

= 3122h + Bh = 312D

offset :- (41216 − 312D0) = FF46

2nd lowest logical address → (312D : FF46)

Qs7 iii)

96823 h.

(i) Largest segment number → 96823 − 0000 (lowest offset)

= 96823

= 96820h (Round down)

= 9682 ← Largest segment

Offset :- 96823 − 96820 = 0003

Lowest Logical address = (9682 : 0003)

(ii) 4th highest Segment number = segment number of highest - 3 h

= 9682 - 3h = 967Fh

offset :- (96823 - 967F0) = 33

2nd Lowest logical address → (967F : 0033)

(iii) 7th highest Segment number = segment number of highest - 6 h

= 9682 - 6h = 967Ch

offset :- (96823 - 967C0) = 63

7th largest logical address → (967C : 0063)